



# UNITED STATES PATENT AND TRADEMARK OFFICE

11/10

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,645	11/10/2003	Jeffrey L. McElray SR.		6138

23361 7590 07/31/2007  
ABB INC.  
LEGAL DEPARTMENT-4U6  
29801 EUCLID AVENUE  
WICKLIFFE, OH 44092

EXAMINER
----------

WILLOUGHBY, TERRENCE RONIQUE

ART UNIT	PAPER NUMBER
----------	--------------

2836

MAIL DATE	DELIVERY MODE
-----------	---------------

07/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/705,645	Applicant(s) MCELRAY ET AL.	
	Examiner Terrence R. Willoughby	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 8-10, 13, 15-17, 19 and 36-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8-10, 13, 15-17, 19 and 36-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

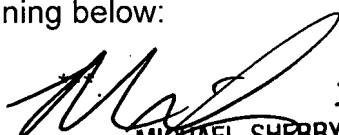
In view of the Appeal brief filed on March 13, 2007, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

 7/23/07  
MICHAEL SHERRY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

#### *Claim Objections*

Claim 36 recites the limitation "the selection and the group" in ll. 7-8 and 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 6, 8-10, 13, 15-17, 36-37, 39, and 41-43 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2 and 3 of U.S. Patent No. 6,707,655 and in view of Buell (US 5,768,079).

Regarding claim 1, claim 1 of the patent discloses a method for controlling a recloser for an electrical power line, comprising:

- determining a protection setting group, the protection setting group having at least one associated feature;

- determining a present condition of the at least one associated feature;

- determining a behavior function for the recloser based on the protection setting group and the present conditions,

wherein the behavior function comprises one of a single-phase operation and three-phase operation; and

adaptively setting the recloser to function in accordance with the behavior function, except for wherein the at least one associated feature comprises one of time of day, day of week, and month of year.

Buell discloses a protective setting group, the protection setting group having at least one associated feature, wherein the at least one associated feature comprises one of time of day, day of week, and month of year (col. 3, ll. 19-27 and ll. 53-55). The examiner interprets the "daily and/or seasonal" fluctuations as a period of the year characterized by a month or day.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the protective setting group, comprising at least one of a time of day, day of week, or month of year as taught by Buell because these type of protection scheme will avoid unnecessarily interrupting services to the customers based on its ability to adaptively monitor the load current due to normal, daily and/or seasonal fluctuations.

Regarding claims 2 and 16, Buell discloses the method according to claims 1 and 15, further comprising continuously monitoring the present condition and changing the behavior function responsive to the monitoring (col. 5, ll. 57 thru col. 6, ll. 1-67 thru col. 7, ll. 1-25).

Regarding claims 3 and 17, Buell discloses the method according to claims 2 and 16, wherein monitoring the present condition comprises monitoring at predetermined intervals (col. 5, ll. 11-22 and col. 6, ll. 40-43).

Regarding claims 6 and 19, Buell discloses the method according to claims 1 and 15, wherein the behavior function comprises one of fuse saving mode and fuse clearing mode (col. 1, ll. 18-39 and col. 5, ll. 19-21 and col. 6, ll. 33 thru col. 7, ll. 1-23). Buell discloses a time-current characteristic curve of the operation of a recloser controller where the recloser would be set to operate to in either a fuse-saving mode or a fuse-clearing mode.

Regarding claim 8, claim 2 of the patent discloses a recloser control system for an electrical power line, comprising:

- a recloser;

- a memory comprising a protection, setting group having at least one behavior function with an associated feature, wherein the at least one behavior function comprises single-phase operation and three-phase operation, and

- a recloser controller coupled to the recloser and the memory for adaptively setting the recloser to function in accordance with one of the at least one behavior functions in the protection setting group, except for wherein the at least one associated feature comprises one of time of day, day of week, and month of year.

Buell discloses a protective setting group, the protection setting group having at least one associated feature, wherein the at least one associated feature comprises one

of time of day, day of week, and month of year (col. 3, ll. 19-27 and ll. 53-55). The examiner interprets the "daily and/or seasonal" fluctuations as a period of the year characterized by a month or day.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the protection setting group, comprising at least one of a time of day, day of week, or month of year as taught by Buell because these type of protection scheme will avoid unnecessarily interrupting services to the consumers based on its ability to adaptively monitor the load current due to normal, daily and/or seasonal fluctuations.

Regarding claim 9, Buell discloses all the limitations recited above in claim 8.

Regarding claim 10, Buell discloses the recloser control system according to claim 8, wherein the recloser controller comprises the memory (col. 5, ll. 46-47).

Regarding claim 13, Buell discloses all the limitations recited above in claim 6.

Regarding claim 15, claim 3 of the patent discloses a computer-readable medium having computer-executable instructions for performing steps comprising:

- determining a protection setting group for a recloser operating on an electrical power line, the protection setting group having at least one associated feature;

- determining a present condition of the at least one associated feature;

- determining a behavior function for the recloser based on the protection setting group and the present condition, wherein the behavior function comprises one of single-phase operation and three-phase operation; and

adaptively setting the recloser to function in accordance with the behavior function, except for wherein the at least one associated feature comprises one of time of day, day of week, and month of year.

Buell discloses a protective setting group, the protection setting group having at least one associated feature, wherein the at least one associated feature comprises one of time of day, day of week, and month of year (col. 3, ll. 19-27 and ll. 53-55). The examiner interprets the "daily and/or seasonal" fluctuations as a period of the year characterized by a month or day.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the protective setting group, comprising at least one of a time of day, day of week, or month of year as taught by Buell because these type of protection scheme will avoid unnecessarily interrupting services to the consumers based on its ability to adaptively monitor the load current due to normal, daily and/or seasonal fluctuations.

Regarding claim 36, Buell discloses all the limitations recited above in claim 8.

Regarding claim 37, Buell discloses all the limitations recited above in claim 6. Buell further discloses wherein the one or more variable comprises time of day and day of week (col. 3, ll. 19-27 and ll. 53-55).

Regarding claim 39, Buell discloses the recloser control system of claim 36, wherein a first one of the control schemes causes the recloser to operate in a single phase mode and a second one of the control schemes causes the recloser to operate in a three-phase mode (col. 3, ll. 53-60) and wherein the one or more variables comprises



month of year (col. 3, ll. 19-24). The examiner interprets the "daily and/or seasonal" fluctuations as a period of the year characterized by a month or day.

Regarding claim 41, Buell discloses all the limitations recited above in claim 37, and wherein the one or more variables comprises load current (col. 3, ll. 19-36).

Regarding claim 42, Buell discloses all the limitations recited above in claim 39 and wherein the one or more variables comprises load current (col. 3, ll. 19-36).

Regarding claim 43, Buell discloses all the limitations recited above in claim 10.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6, 8-10, 13, 15-17, 19, 36-37, 39, and 41-43 are rejected under 35 U.S.C. 102(b) as being unpatentable by Buell (US 5,768,079).

Regarding claim 1, Buell discloses a method for controlling a recloser for an electrical power line comprising:

determining a protective setting group (col. 3, ll. 19-21 and ll. 53-55), the protection setting group having at least one associated feature, wherein the at least one associated feature comprises one of a time of day, day of week, and month of year (col. 3, ll. 19-27). The examiner interprets the "daily and/or seasonal" fluctuations as a period of the year characterized by a month or day.

determining a present condition of the at least one associated feature (col. 3, ll. 19-27 and ll. 47-60 and col. 4, ll. 17-67 thru col. 5, ll. 1-21). The examiner interprets the load currents, single-phase and three-phase as the present conditions due to the daily and/or seasonal fluctuations.

determining a behavior of function for the recloser based on the protective device operations and the present conditions (col.6, ll. 33-67 thru col. 7, ll. 1-25); and

adaptively setting the recloser to function in accordance with the behavior function (col. 7, ll.35-47 and ll. 56 thru col. 8, ll. 1-24).

Regarding claims 2 and 16, Buell discloses the method according to claims 1 and 15, further comprising continuously monitoring the present condition and changing the behavior function responsive to the monitoring (col. 5, ll. 57 thru col. 6, ll. 1-67 thru col. 7, ll. 1-25).

Regarding claims 3 and 17, Buell discloses the method according to claims 2 and 16, wherein monitoring the present condition comprises monitoring at predetermined intervals (col. 5, ll. 11-22 and col. 6, ll. 40-43).

Regarding claims 6 and 19, Buell discloses the method according to claims 1 and 15, wherein the behavior function comprises one of fuse saving mode and fuse clearing mode (col. 1, ll. 18-39 and col. 5, ll. 19-21 and col. 6, ll. 33 thru col. 7, ll. 1-23). Buell discloses a time-current characteristic curve of the operation of a recloser controller where the recloser can be set to operate to save the fuse from damaging (i.e. fuse saving mode).

Regarding claim 8, Buell discloses a recloser control system

for an electrical power line, comprising:

a recloser (col. 1, ll. 30-49);

a memory (col.5, ll. 46-47) comprising a protective setting group having at least one behavior function with an associated feature, wherein the associated feature comprises one of time of day, day of week, and month of year (col. 3, ll. 19-27 and ll. 53-55). The examiner interprets the "daily and/or seasonal" fluctuations as a period of the year characterized by a month.

and a recloser controller coupled to the recloser and the memory (col.5, ll. 46-47) adaptively setting the recloser to function in accordance with one of the at least one behavior functions in the protection setting group (col. 1, ll. 50-60 and col. 7, ll.35-47 and ll. 56 thru col. 8, ll. 1-24 and see Fig. 3, 330,335,340,345).

Regarding claim 9, please see the recited rejection above in claim 8.

Regarding claim 10, Buell discloses the recloser control system according to claim 8, wherein the recloser controller comprises the memory (col. 5, ll. 46-47).

Regarding claim 13, please see the recited rejection above in claim 6.

Regarding claim 36, please see the recited rejection above in claim 8.

Regarding claim 37, Buell discloses all the limitations recited above in claim 6. Buell further discloses wherein the one or more variable comprises time of day and day of week (col. 3, ll. 19-27 and ll. 53-55).

Regarding claim 39, Buell discloses the recloser control system of claim 36, wherein a first one of the control schemes causes the recluse to operate in a single phase mode and a second one of the control schemes causes the recloser to operate in

a three-phase mode (col. 3, ll. 53-60) and wherein the one or more variables comprises month of year (col. 3, ll. 19-24). The examiner interprets the "daily and/or seasonal" fluctuations as a period of the year characterized by a month or day.

Regarding claim 41, Buell discloses all the limitations recited above in claim 37, and wherein the one or more variables comprises load current (col. 3, ll. 19-36).

Regarding claim 42, Buell discloses all the limitations recited above in claim 39 and wherein the one or more variables comprises load current (col. 3, ll. 19-36).

Regarding claim 43, Buell discloses all the limitations recited above in claim 10.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buell (US 5,768,079).

Regarding claim 38, Buell discloses the recloser control system of claim 37, except for the time of day is between 8:00 AM and 5:00 PM and the day of week is one of Monday, Tuesday, Wednesday, Thursday and Friday, then the second one of the control schemes is selected.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the workable range i.e. (time and day of the week) for

the recloser to adaptively open and close based on the desired settings and control schemes programmed under the control of an operator to avoid unnecessarily interrupting service (col. 2, ll. 10-23), since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claim 40, Buell discloses the recloser control system of claim 39, except for when the month of the year is one of April, May, June, July, August and September, then the second one of the control schemes is selected.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the workable range i.e. (months of the year) for the recloser to adaptively open and close based on the desired settings and control schemes programmed under the control of an operator to avoid unnecessarily interrupting service (col. 2, ll. 10-23), since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-3, 6, 8-10, 13, 15-17, 19 and 36-43 have been considered but are moot in view of the new ground(s) of rejection (i.e. Buell (US 5,768,079).

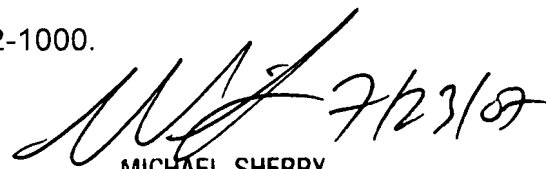
### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nyenya (US 5,278,771) discloses a programmable timed electrical power management device which protects and control electrical based on a particularly time and day of the week. Jindrick et al. (US 4,535,409) discloses a microprocessor based on recloser control (abstract). Hoffman (US 6,222,714) discloses a microprocessor based setting group controller for protective relay operations (abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Willoughby whose telephone number is 571-272-2725. The examiner can normally be reached on 8-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
MICHAEL SHERRY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800